

291 Key

5.3 HW p236-237 15, 18, 33-41 odd (2 long 3 synthetic)

15. $9a^3b^2 - 18a^2b^3$

$3a^2b$

$9a^3b^2$

$3a^2b$

$18a^2b^3$

$3a^2b$

$3ab - 6b^2$

18.

$12mn^3 + 9m^2n^2 - 15m^2n$

$3mn$

$4n^2 + 3mn - 5m$

$x^4 - 3x^3 + 2x^2 - 6x + 19 + \frac{-56}{x+3}$

Long

33.

$x+3 \overline{) x^5 + 0x^4 - 7x^3 + 0x^2 + x + 1}$

$-x^5 + 3x^4$

$-3x^4 - 7x^3$

$+3x^4 + 9x^3$

$2x^3 + 0x^2$

$-2x^3 + 6x^2$

$-6x^2 + x$

$+6x^2 + 18x$

$19x + 1$

$-19x + 57$

-56

$q+5$

35.

$q+3 \overline{) q^2 + 8q + 15}$

$-q^2 + 3q$

$5q + 15$

$-5q + 15$

0

37.
$$\begin{array}{r|rrrrrr} 2 & 1 & 0 & 0 & -3 & 0 & -20 \\ & & 2 & 4 & 8 & 10 & 20 \\ \hline & 1 & 2 & 4 & 5 & 10 & 0 \end{array}$$

$t^4 + 2t^3 + 4t^2 + 5t + 10$

39.
$$\begin{array}{r|rrrr} 2t+3 & 6 & 5 & 0 & 9 \\ 2(t+\frac{3}{2}) & & -9 & 6 & -9 \\ \hline & 6 & -4 & 6 & 0 \end{array}$$

$\frac{1}{2}(6t^2 - 4t + 6)$

$3t^2 - 2t + 3$

41.
$$\begin{array}{r|rrrr} 3d-2 & 9 & 0 & 5 & -8 \\ 3(d-\frac{2}{3}) & & 6 & 4 & 6 \\ \hline & 9 & 6 & 9 & -2 \end{array}$$

$\frac{1}{3}(9d^2 + 6d + 9 - \frac{2}{d-\frac{2}{3}})$

$3d^2 + 2d + 3 - \frac{2}{3d-2}$